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## Factors Hindering Business-IT Alignment in the Banking Sector of a Developing Country

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### Abstract

For more than a decade Business-IT alignment (BITA) has been constantly ranked among the top-ten management issues for IT leaders. Many organizations value the advantages obtained when they are able to align their business and IT strategies. Although considerable models and frameworks have been developed to support organizations in their quest of achieving and sustaining BITA, still many of them face challenges because of some influential factors. While factors influencing BITA in organizations have been widely studied, the barriers in achieving BITA in the banking sector of a developing country remain largely unexplored. In this study we aim at exploring the factors that hinder BITA in the banking sector of a developing country. A case study research was conducted in four commercial banks in Burkina Faso with branches in more than ten other African countries. The data was collected through semi-structured interviews and also from internal documents and has been thematically analyzed. The main findings in this study shows that the delay in task execution, the lack of time to acquire new knowledge, the insufficiency of cross-sectional trainings, the dependency on telecom operators, the heavy workload of banking staff and the reluctance to hire more personnel considerably hinder BITA within the banks in Burkina Faso as a developing country. The results contribute to research in BITA and the limited knowledge about the factors hindering BITA in the banking sector of a developing country. Moreover the results of this research can help IT and business practitioners to further elaborate organizational skills training programs necessary for banks to improve their personnel's performance throughout their journey towards BITA.

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## 1. Introduction

The findings of the annual survey of Society for Information Management on IT issues and trends that was done in 2015 by Kappelman et al. [1] in 785 responding organizations has ranked business-IT alignment as the first one in the top-ten most important IT management issues for IT leaders in organizations. In fact between the years 2005 till 2015 business IT alignment was ranked as the first most important IT management issue (with only a few exceptions in 2007, 2009 and 2012 when was ranked on the second place and in 2010 on the third place)[1]. According to Luftman [2, p.69] “*Business-IT alignment refers to applying Information Technology in an appropriate and timely way, in harmony with business strategies, goals and needs*”. In opinion of Colton et al. [3, p. 94] there is still “*a continuing need for researchers to adapt and extend our knowledge of what it means for IT to be aligned with business*”. As we have noticed business-IT alignment has been recognized to be critical for firms that are desiring to build strategic competitive advantage, increase their visibility, efficiency and have high profitability [4][5]. In order to streamline their organizations’ activities, business and IT executives need to develop better collaboration abilities, taking full advantage of their information systems and ensuring that resources invested in IT systems are based on business strategic objectives. When business and IT are perfectly aligned, firms are able to perform at a high level due to the close cooperation between business and IT departments and their mutual understanding. According to Leonard and Seddon [6] business-IT alignment is important due to the strategic benefits that can be brought to organizations and the fact that IT managers consider business-IT alignment as a key issue for their organizations. In summary, business-IT alignment is important for organizations because it leads to a more focused and strategic use of IT which in turn leads to productivity and also in adding value to the firm by increasing its performance [7].

## 2. Business-IT alignment in the banking sector

In the banking sector, firms that are able to holistically leverage the power of information technology, coordinate their business and IT strategies, develop and acquire system-based applications aligned with their business needs will have higher chances to remain competitive, retain and attract new customers [8]. With an ever increasing competition, it is crucial for financial organizations to justify their heavy IT investments by coordinating their IT strategies with organization processes and business strategies in order to stay ahead in the highly competitive financial market. Banks are constantly improving their ways of organizing their business processes, in order to provide new value propositions to customers. Those aiming at ensuring that investments target projects and activities capable of improving their competitiveness must align their business and IT not only at the strategic level, but also at the operational and tactical levels. Most banks constantly readjust their strategies in order to survive. They struggle to stay up to date with innovative technologies, change their business strategies by going through mergers and acquisitions, developing new projects based on their IT capabilities, and adjusting to regulatory changes. In order to successfully compete in the dynamic environment, banks, like other organizations have to develop information systems capable of supporting business strategies and processes [9]. This means that those that successfully align their IT and business strategies will outperform those that do not.

In the banking sector just as many other businesses, alignment between business and IT occurs when respective strategies are interwoven in such a way that the right things are done, and things are done right meaning that in order to deliver greater value to an organization, alignment must be a two-way relationship, a give and take between IT and business [10], IT has been instrumental in improving communication and connectivity across all segments of the banking sector as well as in enhancing the quality, efficiency and speed of delivery of financial services [11]. The journey towards alignment begins when business and IT realize that they have common goals, defined by the core purpose of the bank that they serve. In a supportive and co-operative environment, Information Technology can contribute valuable ideas on how to solve a business problem and business can include IT in technology investments decisions. The balance of power and responsibility between business and IT must be done in such a way that IT recognizes business importance when developing or purchasing new systems. Similarly, business must also recognize that it is not best placed to take technology-related decisions on its own without including IT. Alignment

between a banks' business and IT factions can be improved by forging a co-operative, mutually beneficial relationship between the two and getting both sides to a degree of fundamental issues such as business involvement in the project and technology's role in building the business [10]. Banks' business users are less concerned with the firm's IT infrastructure such as the number of gigabits per second, storage and redundancy. They are more interested in the ability of the bank to provide reliable services, flexible and reliable banking platform capable of supporting a spurt in transactions without breaking down. A storehouse of technology is therefore important for bankers only if it is capable of providing customers' insight or cutting time to market. Therefore, every IT activity, project or service must play a part in creating business value for the bank. This is done when managers are able to reinvent IT proposition around business-relevant services, attracting the business' attention and creating a better understanding of the impact of one function on the other. Table 1, summarizes the factors identified in research literature review that are influencing business-IT alignment inside and outside the financial sector.

Table 1. Factors identified in research literature that are influencing business-IT alignment inside and outside the financial sector

Factors identification area	Factors influencing business-IT alignment	Authors
Factors identified outside the financial sector	Top management not committed to the strategic use of IT	[12] [13]
	Low level of shared domain knowledge	[14]
	Lack of organizational integration	[15] [16]
	Lack of frequent communication between users and IT Department	[17] [18] [19]
	Lack of personal social network	[13]
	Lack of interpersonal communication skills	[20]
	Past IT implementation failures	[21]
	Unsuccessful IT history	[21]
	Complex IT structure and Organization	[16]
	Lack of Management insight into IT operations	[16]
	Missing focus on customer understanding and customer support	[16]
	Dominance of business executives in decision making	[16]
Factors identified inside the financial sector	Unclear long-term planning strategies	[22]
	Inability to anticipate and act before the effect of change is manifest	[22]
	Not involving the right people in strategic planning	[14][22]
	Lack of top management support and commitment	[17][22]
	Overlooking the bank's past and present position	[22]
	Inability to perform a detailed analysis of the bank's performance	[22]
	Lack of complete understanding of profit mechanics	[22]

It is important to study the factors causing business-IT alignment gaps in the banking sector in order to identify them, and improve the business strategy and vision, and communication of the business strategy so that the firm can benefit from its IT investments [23]. While analyzing business-IT alignment in the banking sector of India, Singh and Desai [11] have found that several barriers that have hindered IT and business alignment in Indian's banks. Among them were managers' inability to identify inter-dependencies of strategic initiatives and impact on value delivery and risk, in addition to poor communication and engagement between business and IT management. Management incapacity to monitor and assess current and future technology improvement, their inability to assess effectiveness of alignment of IT and strategic business initiatives were also found to be factors hindering alignment between business and IT. In a study of a South African banking environment, Kekwaletswe and Mathebula [24] suggested that proper alignment is hardly achieved in the banks studied because IT does not fully understand business needs in addition to the lack of close relationship between IT and the various business units. Both IT and business are thus unable to clearly communicate the goals of their respective units to each other. They have

difficulties to convey their importance to each other's success in reaching those goals. Although business-IT alignment studies have been done in some developing countries' financial sectors the problem that this research wish to address is the lack of research concerning the factors that are hindering Business-IT alignment in the banking sector of Burkina Faso as a developing country.

### 3. Research methodology

A case study research was conducted in four commercial banks operating in Burkina Faso with banking operations in other African countries and representation offices in Europe. They were considered appropriate for this study because they extensively use information systems in their daily operations, provide diverse products and services, have a complex organizational structure and operate mainly in developing countries. Two contacts of the banks' branches in Ouagadougou (Burkina Faso) with whom the researchers had access were initially approached. Afterwards, they helped us to identify business and IT managers who could participate in the study based on their experience and the perceived insights that they could provide to address the research question. According to Yin [25] we need to have well-informed interviewees so that they can provide important insights concerning our case study. Therefore, the eligibility criteria for the sample included in this research was that interview participants should have a business or IT management position with a minimum of three years of experience. In addition, they should be actively involved in critical decisions regarding business and IT strategies. The interviews followed a semi-structured format where participants were invited to add their personal opinion. The data collected was analysed using thematic analysis [26] to interpret different aspects of the research topic where the researcher looks for themes in the data and develop a framework of these themes and compare them among different respondents. Before the interviews have taken place, participants were told in advance the content and the approximate duration of the interviews. Clarifying the goal of the interview has helped the potential interviewees to prepare, acknowledge the overall concept of the research and get comfortable during the interview sessions. The participants were provided with an informed consent so that they could agree with the terms of the study which guaranteed their anonymity. All participants were asked permission to record the interviews so that the researchers could use the transcriptions as a support for analysis and discussion phase, while keeping their information confidential. The interviews were conducted by telephone and were recorded with an audio recorder and allowed the researchers to transcribe the interviews in order to proceed to an analysis and further investigations. The participants in the interviews and their position in the banks including the duration of the interviews are presented in Table 2.

Table 2. List of interviewees, their positions in the banks and duration of the interviews

Interview Participants	Banks	Positions	Interviews Duration
Participant 1 (P1)	Bank A	Business Manager	64 minutes
Participant 2 (P2)	Bank B	IT Manager	92 minutes
Participant 3 (P3)	Bank B	IT Manager	61 minutes
Participant 4 (P4)	Bank A	Business Manager	51 minutes
Participant 5 (P5)	Bank A	IT Manager	58 minutes
Participant 6 (P6)	Bank A	Business Manager	44 minutes
Participant 7 (P7)	Bank C	Business Manager	31 minutes
Participant 8 (P8)	Bank D	IT Manager	32 minutes

Apart from the data collected through interviews we have used different internal documents in order to have multiple sources of evidence and assure data triangulation [25].

#### 4. Results and Discussion

The result of this research shows the main factors (that were not discovered during the research literature review) that can considerably hinder business-IT alignment within the four banks in Burkina Faso. The factors we have identified are the followings: *delay in task execution; the lack of time to acquire new knowledge; the insufficiency of cross-sectional trainings; the dependency on telecom operators; the heavy workload of banking staff; and the reluctance to hire more personnel and reduce workload.* A presentation and discussion of each of these factors is done below.

##### 4.1. Delay in task execution

The speed of requests executions by both IT and business personnel is very important for every bank to run operations and meet clients' needs. Both business and IT personnel have agreed that the workload assigned to agents is often heavy; making it difficult to consistently meet deadlines. The business managers unanimously stated "that most agents are busy, making it difficult to consistently meet deadlines". A business manager pointed out: "Most of times IT agents are so busy that it is difficult to get them to finish a work if they are not constantly reminded. They are so requested from everywhere that if you want your problem to be solved on time, you need to put pressure on them. You need to remind them every time you need this, you need that... When we ask them something, we really need to take into consideration extra time, otherwise it is difficult" (P3). On the other side, IT managers declared that the workload requested in the bank especially from IT department is often so heavy that they are not able to provide high quality services or meet deadlines. An IT participant mentioned: "There are people who are really overloaded. They often feel lost. In the bank, there are people for example who start in the morning to finish at 10 pm simply because they are overloaded. It does not help them to be efficient" (P2). However, the lack of time is not only a concern of IT personnel. A business manager mentioned that their schedule is so packed up that they do not have time for anything else; not even to take evening extra courses to improve their skills. He highlighted that the average time of ending work is 8 pm after starting at 7 am sometimes without time for lunch.

##### 4.2. Lack of time to acquire new knowledge

Another factor that can impede learning and training is the lack of time. As an IT manager points out, once someone starts working, it is very difficult to stay up to date with the technological advances. However without regular trainings, employees' IT skills are easily outdated because he/she is not aware of the new techniques that could help improve daily tasks. A manager acknowledged that: "*There are people who are really overloaded. They start in the morning and end at 10 pm. It reduces efficiency because people just want to finish their work.*" (P2). The manager argued that this lack of time issue is common to most banks employees, and his opinion was shared by some representatives in other banks. Among them, a business manager complained that some employees are so busy that they do not even find the time to organize themselves for self-study. He mentioned: "*When we start in the morning at 7h30, and pause at 12 pm, we resume at 2:30 pm and finish work around 8 pm. It is difficult. Sometimes we don't even go home at noon*" (P3). The lack of time is a concern raised by most participants. When prompted to explain why most employees seem to lack time and what their respective banks are doing in order to solve this issue, they suggested that it was because of more work is available and the number of agents is not enough which means that most banks need more recruitments to decrease the workload and improve their work efficiency.

##### 4.3. 4.3 Insufficient cross-sectional trainings

In order to keep up with the pace of technology, most banks organize trainings that are based on employees' already known skills and required daily activities. When new software is acquired, training sessions are always organized for users to better understand the usage and importance of the IT tools in their tasks. A respondent has

mentioned the following: *“When new software is introduced, there are trainings but only during integration and deployment phase, and also when there are updates”* (P1). However, although the business manager believes that most training are adapted to the employees’ needs, when he was asked what could be the reasons of not providing cross-sectional trainings or inter-departmental trainings, he suggested that it is because employees only need specific IT skills to perform their daily tasks. This could explain why several agents within various banks still lack the basic IT skills and ask assistance from IT departments, delaying other important tasks. The lack of cross-sectional trainings was also discussed by another business manager in the same bank. He has mentioned that: *“Training programs are separated. It has been two years now since I have this role, but I cannot even remember when was the last time I had training with IT guys”* (P4).

If most business managers agreed that the banks’ agents rarely have inter-departmental trainings, it is worth noting that through collaboration, they can still learn from other departments through their informal network. A respondent has mentioned that by following his bank engineers when fixing ATMs, he learned how to solve common problems met with ATM machines. Therefore, he did not wait for a formal training session organized by his bank to acquire that skill.

#### 4.4. 4.4 Dependency on telecom operators

In developing countries such as Burkina Faso, banks often face Internet connection issues as they mostly rely on external service providers. This suggests that any failure at the provider level directly affects the bank’s quality of service and customers’ experience. According to a business manager, the current system in most banks is done in such a way that the ATMs and accounting systems in banks depend on telecom providers. As he explained: *“Naturally if there is a failure from the telecom provider side, all related operations within the bank are automatically affected. As you may already know, it is not rare that telecom operators face difficulties with their IT systems”* (P7). Another participant has asserted that most banks in Burkina Faso have their information systems centralized in countries such as Ivory Coast, Nigeria or France. According to him some banks are connected via satellite communications which is still a problem since they do not have their own local networks. In his opinion: *“In Burkina Faso, most network and telecom providers currently providing services for the banks do not have the necessary technology or appropriate training”* (P8). In fact network connections are critical for electronic banking and inter-banking activities. When connecting banks together it is necessary to have a reliable network that in Burkina Faso is provided by the telecom operators. However, in case of a network failure the agents must manually perform operations, due to the banks interdependence through tele-compensation, case in which the banks lose a considerable amount of money. A business manager has confirmed: *“You just need to have a failure of a telecom operator or a damaged fiber optic for all tele-compensation operations to stop”* (P5). The dependency of banks on the network and telecom operators implies that they do not have appropriate IT infrastructures capable of handling complex banking operations. Although banks are aware that a strong dependency makes them vulnerable as any system failure from the network operators can significantly damage their operational capacity, most banks are not keen to heavily invest in their IT infrastructures.

#### 4.5. 4.5 Heavy workload of banking personnel

While each bank has a relatively different organizational chart and structure clearly showing the roles and responsibilities of each member, some agents often perform multiple tasks that should be done by more than one individual. This may be due to the fact that banks are reluctant to recruit full time employees as they aim at maximizing profits. According to an IT manager, this can create some security issues for the banks: *“You often see a person doing multiple tasks. This means that unlike his official profile, he can end up having access to things that normally he should not. So this can lead to confidentiality problems. I think we need well-defined tasks”* (P2). Another manager confirmed the heavy workload that some banks’ employees have. He complained that the top management has transferred their personnel without filling the gap or understanding the impact it has on other employees. He mentioned that: *“At the headquarters, we are the ones who do send people to other locations. But I think it should be done more adequately. You see sometimes only one or two people who should deal with all the transfers. They are overwhelmed! I think we can plan better”* (P1). As employees often find themselves very busy



with their daily tasks, they are unable to do other activities such as registering for new courses that will help them sharpen their skills. By hiring more employees, banks can reduce the workload of agents, giving them more free time to explore other area of interest, which can increase motivation and improve their work performance.

#### 4.6. 4.6 Reluctance to hire more personnel and reduce workload

As banks work daily with customers, they deal with various aspects ranging from opening a bank account, managing accounts, transfers, loans etc. Therefore agents are almost always busy helping customers solve their problems. However sometimes, the pressure seems to be considerable and unbearable for some agents. As was mentioned by some participants, most banks are reluctant to make investments when the return of investment is not clear. An IT manager remarked that: *“If you ask a financial manager to invest in this or that because it will improve our performance, if he is not able to measure the return financially, he will hesitate to invest”* (P2). However, although training programs seem to raise financial concerns, in virtually all banks, there are often budgets dedicated for trainings when drafting yearly plans. A business manager explained that the reason lies in the fact that IT department simply has some training that is not necessary for other departments and some departments do not use resources allocated to trainings probably because they want to show that they have a surplus when evaluation time comes. This point of view was shared by another manager from a different bank who argued that: *“An organization such as a bank needs to make profit. So, investments must be profitable”* (P6). The willingness to hire more people in order to reduce workload of agents is influenced by the profit mindset that lies at the top of leadership in most banks. Therefore there is a tacit acceptance to overload banking agents making a single employee perform tasks that could be done by two or more people. While having less people that are performing more tasks can be financially beneficial to a bank, but it can hinder business-IT alignment by considerably reducing performance and quality of service.

## 5. Conclusions

The aim of this study was to provide insights about the factors capable of hindering business-IT alignment in the banking sector of a developing country. The concept of business-IT alignment was explained along with an investigation of the challenges that banks in Burkina Faso are facing when they are trying to coordinate their different business and IT departments' activities. Accordingly, a case study research involving four banks was applied to obtain a deeper understanding of Burkina Faso banks' challenges, and identify the potential factors hindering business-IT alignment. The study has shown that business-IT alignment remains a major challenge for most banks. Most respondents have identified more or less similar factors that could inhibit alignment and reduce their organization's overall performance. The findings showed that the collaboration between departments is not always optimal as there are often delays in requests. Most banks score relatively low in regular training of employees according to participant's views. The challenges related to collaboration and training mentioned above prevent banking agents to deliver excellent performance. The banks should put less pressure on agents, especially those working in their IT departments. This can be done by hiring more employees and investing in them through diverse cross-sectional training programs. Interdepartmental learning sessions will enable each member of the organization to better understand the importance of other departments, and the key role each one plays. It will also help managers to better comprehend other colleagues' departments contribution and challenges. Recognizing the importance and role of each department within a bank represents a critical factor in collaboration. Due to the continuously changing banking environment and technological advances, banks are required to display high agility and willingness to invest in latest technology and infrastructure. IT managers must remain up to date with banks' infrastructures and technological innovation. Since most of commercial banks have up to date applications, they need to invest in infrastructures to avoid incompatibility issues. In respect to the banks' organizational structure, as some agents perform multiple tasks and often have more access rights than the ones indicated in their profiles, it can result in confidentiality problems and cause security breaches. Therefore, in addition to hiring and training more agents, the banks should have a more concise description of tasks performed by each employee. IT department and business departments within the bank should consider strengthening their mutual cooperation; get involved in a common strategizing process in order to improve their business-IT alignment. It increases understanding of mutual

goals and priorities, and leads to a better planning integration. The senior management and leadership need to constantly remind of the organizational vision and encourage all departments to share business and IT goals in order to create a culture valuing high organizational performance, competency and effectiveness. An important issue mentioned by all participants is the dependency of Burkina Faso's banks network infrastructures on external telecom providers. According to them some equipment such as satellite network communications are expensive for a single local bank to own, operate, manage and maintain. However a full dependency on external providers implies that a failure from the provider's infrastructure system is likely to cost considerable damage to the banks. Therefore, although it is costly to acquire efficient equipment for smooth operations, banks need to consider gradual investment strategies that can guarantee their independence from an infrastructural point of view.

The results have shown that the daily operations of banks are not static because they involve continuous cooperation between each unit. As it has been noted by Luftman and Brier [17] business-IT alignment requires continuous adjustment to IT innovation and both internal and external business environmental factors. Therefore there is no simplistic, single one-answer solution for banks to achieve a high business-IT alignment level. Nonetheless, the identification of factors that can hinder business-IT alignment can help banks minimize negative impact of misalignment, constantly evaluate and adjust their IT systems and strategies, and improve their decision making processes.

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